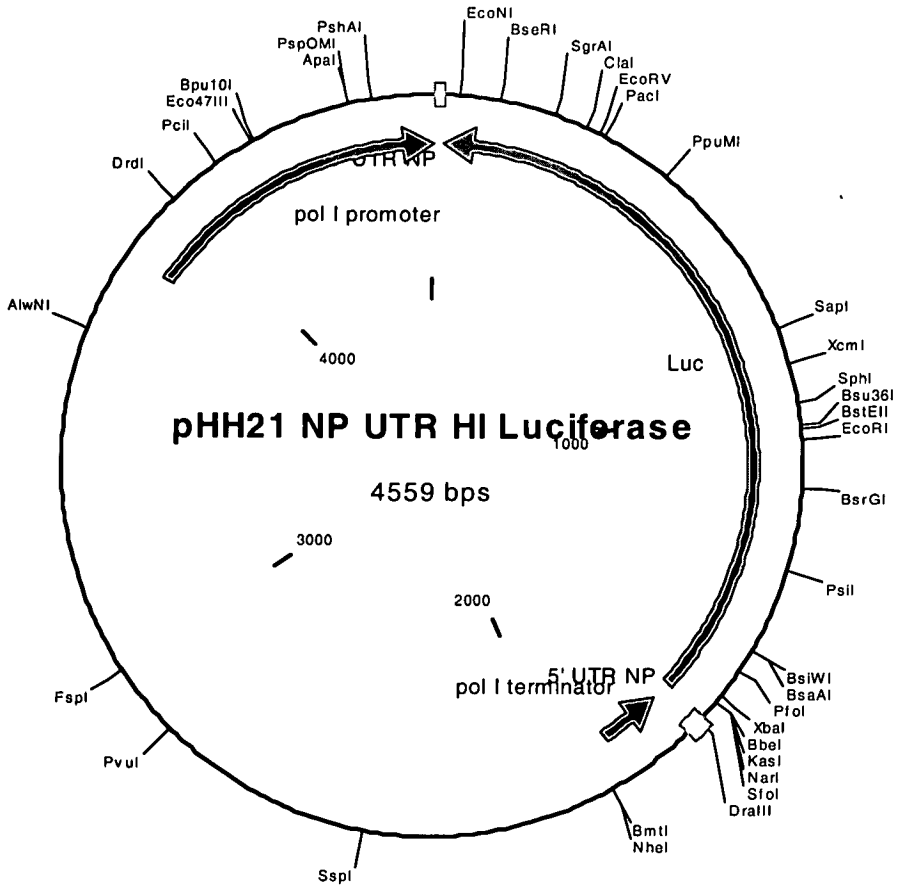
MAP OF PLASMID pHH21 NP UTR luciferase

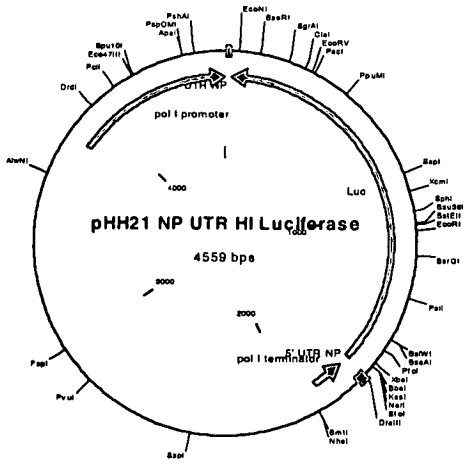


FEATURES

nt 3-25	3' UTR NP
nt 26-1678	Luciferase
nt 1679-1723	5' UTR NP
nt 1724-1865	pol I terminator
nt 3859-2	pol I promoter

FIGURE 1

TRANSCRIPTION, REPLICATION AND TRANSLATION OF A SEGMENTED NEGATIVE STRAND VIRUS ARTIFICIAL SEGMENT



Transfect cells with plasmid

\- 3'utr 5'utr

Host cell RNA polymerase I enzyme transcribes a negative polarity RNA molecule

Infect with virus-containing sample or introduce viral polymerase components

\- 3'utr 5'utr

replication

Viral polymerase replicates the + polarity RNA into – polarity RNA

\+ 5'utr 3'utr

OR

\+ CAP A_n

Viral polymerase recognizes the reporter gene containing RNA, replicates it into a positive polarity RNA molecule and transcribes it into an mRNA

translation

Reporter protein

FIGURE 2

METHOD FOR DETECTING VIRUSES USING VIRAL POLYMERASE RESPONSIVE REPORTER GENES

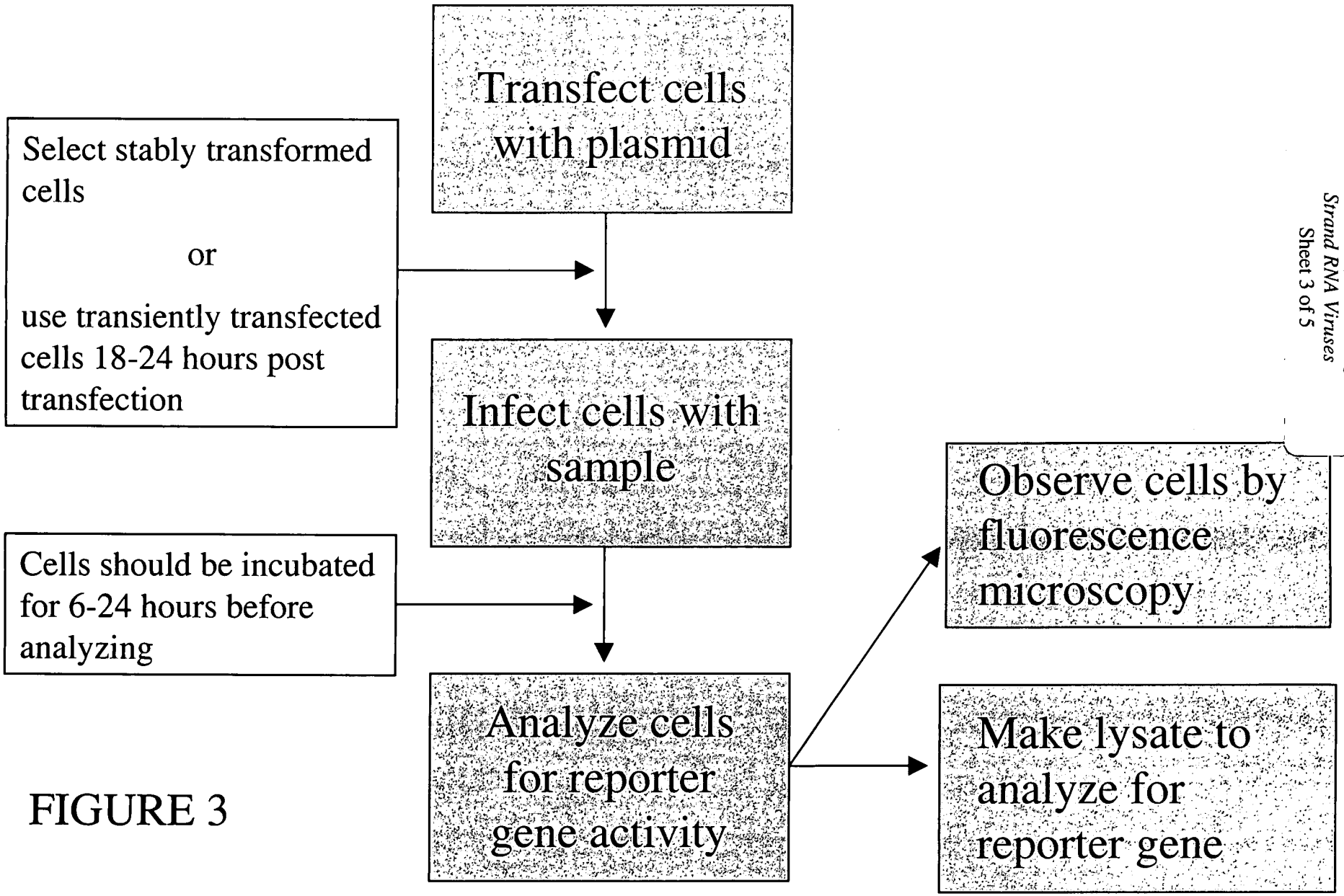


FIGURE 3

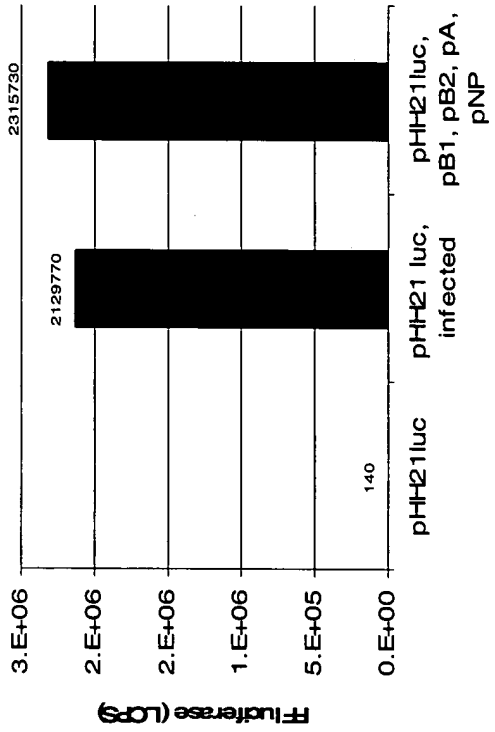

Fluoterase (LCPS)
3.E+06
2.E+06
2.E+06
1.E+06
5.E+05
0.E+00
2315730
2129770
140
pHH21luc
pHH21 luc, infected
pHH21luc, pB1, pB2, pA, pNP

FIGURE 4

GFP reporter gene assay

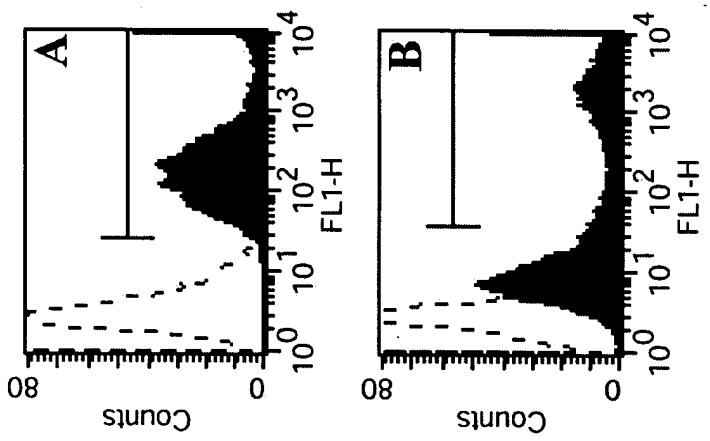


FIGURE 5